

Appendix Coherence- Cross domain

An in-depth coherence analysis was carried out between the SILC survey and the Household Budget Survey (HBS), which is also conducted by the FSO. This analysis covers the percentage of households receiving the various components, the distribution of amounts above 0 and at-risk-of-poverty rates by individual profile. As the reference year for income in the 2020 SILC survey was 2019, a comparison was made with HBS data from 2019.

The Household Budget Survey is conducted annually and seeks to collect detailed information on households' income and expenditure. The survey samples about 3 400 households, primarily through the use of written questionnaires. The response burden of the HBS is high, explaining why unadjusted response rates are relatively low at less than 40%. Unlike the SILC survey, no register information is reconciled with information gathered during fieldwork. However, in the event of inconsistencies arising during HBS quality controls, householders are contacted again to clear up issues and correct information where appropriate.

1. Comparison of SILC20-HBS19 income components

Compared income components are those whose Eurostat definitions are relatively similar in the two surveys. However, HBS goes into more detail about various items of income that may at times be problematic for comparisons. Although the linking of these items to Eurostat components was subject to a coordinated assessment between the SILC survey and the HBS, definition mistakes or discrepancies may still arise.

Table 1 shows the average of core income components for all households (N non-weighted 8156 for the SILC and 3312 for the HBS), while table 2 indicates the proportion of households with a positive amount in relation to an income component, along with the average of values above 0. All results have been calculated with weightings.

Findings from table 1 indicate that, of the 16 income components that were compared, the majority (9) had a similar average (with statistical significance of 95%) in both surveys.

The average amount per household is significantly higher in the SILC for the components *Cash benefits or losses from self-employment* (PY050G), *Disability benefits* (PY130G), *Pension from individual private plans* (PY080G) and *Family /children-related allowances* (HY050G), whereas the components *Regular inter-household cash transfer received* (HY080G) and *Sickness benefits* (PY120G) are significantly higher in the HBS. None of these represents a significant part in the calculation of the available income.

Significant differences also appear in the HY130G *Tax on income and social contributions* for the second consecutive year, and for the first time in the PY050G *Cash benefits or losses from self-employment*.

The differences concerning these components can be seen in Table 2, which this time only shows the average for households receiving the sub-component.

We can see that there was no significant difference between the SILC and the HBS with regard to the average income from employment across all households. Conversely, analyses carried out on households receiving income from employment show slight differences in the percentage of households with a salaried income as well in the average income from self-employment. The percentage of households with a salaried income (>0) is greater in the SILC than it is in the HBS. However, the percentage with an income from self-employed activity (>0) (PY050G *Cash benefits or losses from self-employment*) is slightly higher in the HBS. Conversely, the average income from self-employment is much higher in the SILC. This may partly be explained by a higher frequency of small amounts declared in the scope of the HBS, PAPI survey that also gives more rubrics for the income. In the SILC, the statutes of the activity (employed or self-employed) according to the CCO register are prioritised. In the HBS, priority is given to the option chosen by the respondent. It is thus possible that a proportion of the respondents classify themselves as self-employed even though they are considered to be employed in the CCO register (for example, employees of their own business) and are thus classified as such for the SILC.

Table 1: Comparison SILC20-HBS19. Average and confidence interval of income sub-components for all households (with or without income) with weightings, in CHF. Components for which averages with confidence intervals of 95% do not correspond are outlined in red.

		SILC20			HBS19		
		Confidence interval (95%)			Confidence interval (95%)		
		Average	min	max	Average	min	max
Employment income							
PY010G	Employee cash or near-cash income (Gross)	85 417	82 343	88 491	80 428	77 166	83 690
PY050G	Cash benefits or losses from self-employment	5 941	5 216	6 666	3 922	3 168	4 677
Investment and property income							
HY040G	Income from rental of a property or land	4 042	2 894	5 190	2 435	1 817	3 052
HY090G	Interest, dividends, profit from capital investments in unincorporated business	2 715	2 085	3 344	1 925	1 543	2 308
Transfer income							
PY100G	Old-age benefits	16 682	15 996	17 368	17 362	16 242	18 483
PY110G	Survivor benefits	785	669	901	626	384	867
PY130G	Disability benefits	2 205	1 948	2 462	1 231	935	1 526
PY120G	Sickness benefits	243	162	323	1 342	993	1 691
PY080G	Pension from individual private plans	697	577	816	251	175	328
PY140G	Education- related allowances	112	80	145	103	41	164
HY050G	Family/Children-related allowances	1 689	1 594	1 784	1 416	1 302	1 529
HY060G	Social exclusion not elsewhere classified	1 533	1 270	1 797	1 940	1 631	2 248
HY070G	Housing allowances	163	98	227	174	109	239
HY080G	Regular inter-household cash transfer received	1 117	936	1 298	1 748	1 404	2 092
Mandatory deductions							
HY130G	Regular inter-household cash transfer paid	1 750	1 574	1 926	2 079	1 812	2 345
HY140G	Tax on income and social contributions	36 331	35 226	37 436	33 598	32 350	34 846

For several income sub-components, the percentage of households receiving a non-zero amount is higher in SILC than in HBS, as shown in Table 2. These are the sub-components *Survivor's benefits* (PY110G), *Disability benefits* (PY130G), *Pension from individual private plans* (PY080G), *Family/Children-related allowances* (HY050G), *Education related allowances* (PY140G) and *Social exclusion not elsewhere classified* (HY060G). This can largely be explained by differences in the reference period: the whole of 2019 for the SILC / month of reference for the HBS.

The percentage of households with transfers paid to other households (HY130G) or received from other households (HY080G *Regular inter-household cash transfer received*) is far higher in the HBS, even though the average of the positive amounts, both the transfers received and paid, is significantly higher in the SILC than in the HBS. However, the average of all households (Table 1) is ultimately higher for the HBS. This can largely be explained by the fact that the irregular transfers between households are integrated into this component for the HBS, whereas in the SILC only the regular transfers are considered.

Most of the differences observed between SILC20 and HBS19 have already been seen in previous years and can be explained by the previously mentioned arguments. However, these arguments alone cannot explain the important differences observed, particularly on income from employment (PY010G) or self-employment (PY050G). We are therefore seeking for further explanations.

Table 2 SILC20-HBS19. Proportion (%) of households with income sub-component (>0) and average (in CHF) thereof where this is non-zero. Sub-components for which ratios or averages with confidence intervals of 95% do not correspond are outlined in red.

SILC20													HBS19				
		% of households with income > 0			Confidence interval			% of households with income > 0			Confidence interval						
		(95%)			(95%)			(95%)			(95%)						
		%	min	max	Average	min	max	%	min	max	Average	min	max				
Employment income																	
PY010G	Employee cash or near-cash income	73.7%	72.6%	74.7%	115 946	112 067	119 826	67.2%	65.3%	69.0%	119 751	116 092	123 410				
PY050G	Cash benefits or losses from self-employment	10.9%	10.2%	11.7%	54 310	48 880	59 740	12.8%	11.5%	14.0%	30 757	25 635	35 878				
Investment and property income																	
HY040G	Income from rental of a property or land	10.7%	9.9%	11.4%	37 927	27 504	48 350	10.4%	9.3%	11.5%	23 409	17 956	28 862				
HY090G	Interest, dividends, profit from capital investments in unincorporated business	69.0%	67.8%	70.2%	3 936	3 024	4 849	68.0%	66.2%	69.8%	2 831	2 273	3 390				
Transfer income																	
PY100G	Old-age benefits	31.0%	30.0%	32.1%	53 745	52 503	54 987	30.6%	28.9%	32.4%	56 690	54 694	58 685				
PY110G	Survivor benefits	3.2%	2.8%	3.6%	24 532	22 560	26 503	1.8%	1.2%	2.3%	35 006	27 407	42 606				
PY130G	Disability benefits	8.6%	7.9%	9.4%	25 529	23 495	27 562	4.5%	3.6%	5.4%	27 269	23 814	30 723				
PY120G	Sickness benefits	1.6%	1.2%	2.0%	15 437	11 396	19 478	3.1%	2.4%	3.9%	42 747	37 238	48 256				
PY080G	Pension from individual private plans	3.2%	2.8%	3.5%	22 041	19 210	24 872	2.1%	1.5%	2.6%	12 195	9 737	14 653				
PY140G	Education- related allowances	2.0%	1.5%	2.4%	5 749	4 524	6 973	0.7%	0.4%	1.1%	13 935	9 950	17 920				
HY050G	Family/Children-related allowances	27.5%	26.4%	28.7%	6 133	5 925	6 342	24.1%	22.4%	25.7%	5 878	5 609	6 146				
HY060G	Social exclusion not elsewhere classified	22.1%	20.9%	23.2%	6 944	5 899	7 988	19.2%	17.6%	20.8%	10 115	8 732	11 497				
HY070G	Housing allowances	1.5%	1.0%	1.9%	11 096	9 125	13 066	1.8%	1.2%	2.3%	9 925	8 516	11 335				
HY080G	Regular inter-household cash transfer received	7.5%	6.8%	8.2%	14 965	12 938	16 991	16.6%	15.1%	18.0%	10 558	8 668	12 447				
Mandatory deductions																	
HY130G	Regular inter-household cash transfer paid	15.7%	14.8%	16.7%	11 133	10 180	12 087	30.4%	28.6%	32.2%	6 842	6 066	7 617				
HY140G	Tax on income and social contributions	100.0%	100.0%	100.0%	36 331	35 226	37 436	100.0%	100.0%	100.0%	33 598	32 350	34 846				

2. Comparison of at-risk-of-poverty rates SILC20-HBS19

Table 3 sets out estimated at-risk-of-poverty rates in regard to SILC20 and HBS19 for some socio-demographic sub-groups. Results show some inconsistencies between the two sources regarding persons over 50 years. Results of both surveys have decreased since last year, but the decline is much more pronounced in the HBS, making the differences significant. As mentioned in chapter 1, we are looking for explanations.

Table 3 SILC20-HSB19 Comparison of at-risk-of-poverty rates by socio-demographic category

		SILC20			HBS19		
Variable		n	At-risk-of-poverty rate (%)	Confidence interval (95%)	n	At-risk-of-poverty rate (%)	Confidence interval (95%)
				min max			min max
Total population		18 215	15.5	14.2 16.9	7 278	16.1	14.5 17.8
Age	0-17 years	3 400	19.8	15.8 23.9	1 469	18.6	15.0 22.2
	18-64 years	11 131	11.7	10.5 12.9	4 346	14.4	12.7 16.1
	18-24 years	1 274	13.4	10.1 16.7	368	18.9	12.4 25.3
	25-49 years	5 635	11.7	10.1 13.3	2 359	12.0	10.1 14.0
	50-64 years	4 222	11.1	9.7 12.6	1 619	16.9	14.3 19.4
	65 years and over	3 684	24.8	22.7 26.9	1 463	19.3	16.2 22.5
Sex	Men	9 407	16.0	14.5 17.5	3 694	16.9	15.0 18.8
	Swiss	7 997	13.2	12.0 14.4	3 179	15.9	14.0 17.9
	Foreign	1 410	24.6	19.2 29.9	515	20.0	14.8 25.3
	Women	8 808	15.0	13.6 16.5	3 584	15.4	13.5 17.2
	Swiss	7 382	12.5	11.2 13.8	3 042	14.1	12.2 16.0
	Foreign	1 426	22.3	17.7 26.8	542	19.1	13.9 24.2
Type of household	Single person aged below 65	1 583	15.2	13.1 17.3	720	18.6	15.2 22.1
	Single person aged 65 or over	1 137	31.4	28.1 34.7	372	20.8	15.7 25.8
	Couple aged below 65 with no child in the household	2 482	6.5	4.6 8.4	1 130	9.4	6.4 12.4
	Couple aged 65 or over with no child in the household	2 532	21.0	18.4 23.6	1 154	18.6	14.8 22.3
	Mother or father alone with child(ren)	929	25.8	19.4 32.3	356	31.9	22.0 41.9
	Couple with child(ren)	7 875	12.9	10.4 15.3	3 152	14.2	11.0 17.3
	Other type	1 677	16.8	8.4 25.2	394	17.3	9.6 24.9
Housing occupancy status	Owner	9 417	10.7	9.4 12.0	3 668	13.7	11.6 15.8
	Tenant	8 687	18.9	16.7 21.2	3 610	18.0	15.5 20.6
Region	Lake Geneva region	3 414	19.4	15.7 23.1	1 243	17.8	13.7 21.8
	Espace Mittelland	4 191	16.4	13.8 19.0	1 530	17.1	13.3 20.9
	Northwest Switzerland	2 490	18.5	11.7 25.3	948	11.7	7.3 16.1
	Zurich	3 152	10.1	7.4 12.9	1 105	13.8	10.1 17.5
	Eastern Switzerland	2 484	13.6	10.4 16.7	915	18.0	13.2 22.8
	Central Switzerland	1 707	12.3	8.1 16.6	847	15.9	8.4 23.4
	Ticino	777	20.5	14.9 26.1	690	21.8	15.7 27.9